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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,689	11/06/2003	Vinay Mehta	FDN-2815	8995

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GAF MATERIALS CORPORATION

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EXAMINER

COLE, ELIZABETH M

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/702,689

Applicant(s)

MEHTA ET AL.

Examiner

Elizabeth M. Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 19-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/18/06
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 4-7, 12, 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 1,245,620. EP '620 discloses a breathable film material comprising a polyolefin resin such as polypropylene which is laminated to a substrate such as a polyolefin nonwoven fabric. See paragraph 0001. The material is suitable for use in forming waterproofing sheets for roofs. The film may further comprise additives such as alumina to impart heat and flame resistance. See paragraph 0009. With regard to claim 17, claim 17 recites a statement of intended use and does not structurally further limit the structure set forth in claim 1. EP '620 clearly teaches a breathable film at paragraph 0045. The MVTR is 1000-3000 grams per square centimeter per day which meets the limitation of 3 perms since that is equal to 6.7 grams per 100 square inches per atm per day which is equal to about .0103 grams per square centimeter and since this is a minimum value EP '620 meets this limitation.

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 4-8, 10, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 9637668, (abstract – a complete translation of this document has been ordered and will be forwarded when it has been received by the examiner). WO '668 discloses a barrier laminate comprising a breathable film layer comprising polyurethane and a substrate layer. The substrate layer may comprise woven, felt, knitted or nonwoven fabrics. The substrate layer is coated with the film layer. The substrate layer may comprise natural or synthetic fibers such as cotton, linen, jute, hemp, sisal, regenerated or modified cellulosic fibers, mineral fibers, polyester, polyamide, polyacrylic or PVC fibers. With regard to claim 17, claim 17 recites a statement of intended use and does not structurally further limit the structure set forth in claim 1. While WO'668 does not particularly state the claimed MVTR, since WO '668 teaches employing a permeable or breathable film, it would have been obvious to one of ordinary skill in the art to have selected the desired MVTR through the process of routine experimentation which had the optimum MVTR.

5. Claims 1-2, 4-7, 10, 13-14, 17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albertone et al, U.S. Patent No. 6,645,336. Albertone discloses a breathable film which may comprise polyether, polyurethane, polyether ester, polyether

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amide, polyvinyl alcohol polymers and copolymers. See col. 4, lines 37-56. The breathable film is bonded to a substrate such as a polyolefin nonwoven fabric. See col. 5, lines 45-col. 7, lines 3. A tie layer of copolymers comprising ethylene vinyl acetate can be used to facilitate bonding between the film and nonwoven substrate layer. With regard to claim 17, claim 17 recites a statement of intended use and does not structurally further limit the structure set forth in claim 1. The laminated film is useful in roofing. The thickness of the film encompasses the claimed range. See 20-60 μm . While Albertone does not particularly state the claimed MVTR, since Albertone teaches employing a permeable film, and teaches that the permeability of the film can be controlled by controlling various factors such as the thickness of the layers and/or the chain length of the polymer, (see col. 12, lines 28-44), therefore, Albertone teaches that the MVTR is a result effective variable and therefore, it would have been obvious to one of ordinary skill in the art to have selected the desired MVTR through the process of routine experimentation which had the optimum MVTR.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1,245,620. EP '620 discloses a laminate material as set forth above. EP '620 differs from the claimed invention because it does not disclose the claimed thickness of the substrate. With regard to the thickness of the substrate, it would have been obvious to one of ordinary skill in the art at the time the invention was made to selected the thickness of the substrate through the process of routine experimentation in order to arrive at a laminate which had the desired strength, weight, breathability, etc.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over each of EP 1,245,620, WOWO 9637668, Albertone et al, U.S Patent no. 6,645,336 each in view of Kuhnelt et al, U.S. Patent No. 4,511,619. Each of EP '620, WO '668 and Albertone disclose breathable laminates which comprise a film layer and a fabric substrate layer. None of the cited references teaches disposing the film on both sides of the fabric substrate layer. Kuhnelt teaches that in forming roofing materials that the film can be disposed on both sides of the fabric so that the fabric can strengthen the film. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have disposed film layers on both sides of the substrate in each of the primary references, in order to allow the substrate to fully strength the film layers.

8. Claims 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albertone et al, U.S. Patent No. 6,645,336 in view of Kirchberger et al, U.S. Patent No. 6,300,257. Albertone discloses a breathable laminate as set forth above. Albertone does not disclose that the polymer layer or the tie layer comprises methyl methacrylate. Kirchberger teaches that methyl methacrylate can be added to layers of breathable roofing materials in order to improve the interlaminar bonding strength of layers which contain ethylene copolymers. See col. 3, lines 9-17. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added methyl methacrylate to the tie layers and film layers of Albertone, motivated by the expectation that this would further enhance the interlaminar bonding strength of the material.

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9. Applicant's arguments filed 4/18/06 have been fully considered but they are not persuasive. Applicant argues that EP '620, WO '668 and Albertone do not disclose a breathable film. However, EP '620 clearly teaches a breathable film at paragraph 0045. The MVTR is 1000-3000 grams per square centimeter per day which meets the limitation of 3 perms since that is equal to 6.7 grams per 100 square inches per atm per day which is equal to about .0103 grams per square centimeter and since this is a minimum value EP '620 meets this limitation. With regard to WO '668 and Albertone, while the references do not specifically teach the claimed MVTR, both references teach employing breathable films and it would have been obvious to one of ordinary skill in the art to have selected the MVTR through the process of routine experimentation which resulted in the optimum breathability for the film.

10. The translation of WO '668 has not yet been received. When it is received a copy will be forwarded to Applicant.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.



Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c